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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,561	01/13/2004	Jeremiah D. Quill	911-002.009-1	3021

4955 7590 01/30/2007
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EXAMINER

FRANTZ, JESSICA L

ART UNIT	PAPER NUMBER
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3746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/757,561

Applicant(s)

QUILL ET AL.

Examiner

Jessica L. Frantz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/17/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Attachment "A", 5 pp.

DETAILED ACTION

1. This is the first office action in response to the above identified patent application filed on 1/13/2004.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3 recites the limitation "the close coupled adapter" in lines 18-19. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 10-11, 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Loret US 4,621,981. Loret teaches the invention substantially as claimed including a pumping device having a motor 12 arranged in relation to a pumping assembly being the lower portion of the structure as seen in figure 3, the motor 12 having a housing being the length of the structure as shown in figure 3 from 14 down to the flange which abuts adaptor 100, and a shaft 16 extending therefrom for rotating an impeller 18 in the pumping assembly, having a motor seal 96 arranged therein between the shaft 16 and the housing, and having a pump seal 28 arranged between

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the shaft 16 and the pump assembly, characterized in that the pumping device further comprises a third seal 98 arranged in relation to the shaft 16 for providing additional sealing protection for the motor seal 96 as shown in figures 3 and 4. Lorett further teaches an adapter 100, which is a close coupled adapter as shown in figure 4, is arranged between the motor housing and the pumping assembly having the third seal 98 arranged thereon as shown in figure 4 and that the third seal 98 is located on the motor end of the close coupled adapter 100 and is a primary sealing device as shown in figure 4.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7, 15, 4, 12, 6, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorett 4,621,981 in view of Kutz et al. *"Mechanical Engineers' Handbook"*. Lorett teaches the claimed invention as discussed above, but fails to teach the following claimed limitations that are taught by Kutz: using labyrinth seals around the shaft because they permit shaft excursions without potentially catastrophic rub-induced rotor instability problems and are well suited for high speed application see Kutz p. 650, using lip seals around the shaft because they can be manufactured in a very compact and yet effective manner see Kutz p. 640, and using non-contact seals around the shaft because they are well suited for applications inducing extremely high-

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speeds and high pressures see Kutz p. 646. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the seals of Lorette with the seals of Kutz because labyrinth seals permit shaft excursions without potentially catastrophic rub-induced rotor instability problems and are well suited for high speed applications see Kutz p. 650, lip seals can be manufactured in a very compact and yet effective manner see Kutz p. 640, and non-contact seals are well suited for applications inducing extremely high-speeds and high pressures (see Kutz p. 646.)

8. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorette U.S. 4,621,981 in view of U.S. Alberni 5,413,462. Lorette teaches the claimed invention as discussed above, but fails to teach the following claimed limitations that are taught by Alberni: centrifugal pumps are preferred in certain applications due to their ability to pump relatively large volumes of fluid without generating excessive pump noise levels see Alberni column 1, lines 60-63. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Lorette's invention to employ a centrifugal pump for applications requiring the pumping of relatively large volumes of fluid without generating excessive pump noise levels (see Alberni column 1, lines 60-63.)

9. Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorette U.S. 4,621,981 in view of Anderson U.S. 5,401,140. Lorette teaches the claimed invention as discussed above, but fails to teach the following claimed limitations that are taught by Anderson: positive displacement pumps are preferred in certain applications

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due to their ability to pump relatively thick and heavy materials see Anderson column 1, lines 28-40. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Loret's invention to employ a positive displacement pump for applications requiring the pumping of relatively thick and heavy materials (see Anderson column 1, lines 28-40.)

10. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loret U.S. 4,621,981 in view of De Lange U.S. 5,277,545. Loret teaches the claimed invention as discussed above, but fails to teach the following claimed limitations that are taught by De Lange: using magnetic seals around the shaft because they are generally non-contact and therefore are non-wearing see De Lange column 5, lines 33-41.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the seals of Loret with the seals of De Lange because magnetic seals are generally non-contact and therefore are non-wearing (see De Lange column 5, lines 33-41.)

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. Frantz whose telephone number is 571-272-5822. The examiner can normally be reached on Monday through Friday 8:30a.m.-5:00p.m. E.S.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jessica Frantz

JF 1/19/2007

William Rodriguez

WILLIAM RODRIGUEZ
PRIMARY EXAMINER

1/22/07